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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,794	08/04/2003	Brent A. Hom	SD-8471	7243
21568	7590 05/17/2005		EXAMINER	
TIMOTHY P EVANS SANDIA NATIONAL LABORATORIES			LEE, PATRICK J	
P O BOX 969 MS 9141			ART UNIT	PAPER NUMBER
LIVERMORI	E, CA 945510969	2878		
			DATE MAILED: 05/17/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)			
	10/633,794	HORN ET AL.			
Office Action Summary	Examiner	Art Unit			
Tr. AAAU NO DATE (N.	Patrick J. Lee	2878			
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period v  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be timed within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 04 A	ugust 2003.				
2a) This action is <b>FINAL</b> . 2b) ⊠ This	'his action is <b>FINAL</b> . 2b)⊠ This action is non-final.				
,—	Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims					
4) ⊠ Claim(s) 1-13 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-13 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/o	vn from consideration.				
Application Papers					
9) The specification is objected to by the Examine 10) The drawing(s) filed on 04 August 2003 is/are:  Applicant may not request that any objection to the  Replacement drawing sheet(s) including the correct  11) The oath or declaration is objected to by the Ex	a) accepted or b) objected in abeyance. See it in a required if the drawing(s) is objected in a required if the drawing(s) is objected in the drawing(s).	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign  a) All b) Some * c) None of:  1. Certified copies of the priority document  2. Certified copies of the priority document  3. Copies of the certified copies of the priority application from the International Bureau  * See the attached detailed Office action for a list	s have been received. s have been received in Applicati nty documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage			
Attachment(s)					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:				

Application/Control Number: 10/633,794

Art Unit: 2878

**DETAILED ACTION** 

**Drawings** 

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description:

Label "410" is not disclosed on the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to

the specification to add the reference character(s) in the description in compliance with

37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being

amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37

CFR 1.121(d). If the examiner does not accept the changes, the applicant will be

notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Objections

3. Claims 5, 7-9, & 12-13 are objected to because of the following informalities:

Page 2

With respect to claims 5, 7-9, & 12-13, the preamble of the claim should be consistent with the other dependent claims.

With respect to claim 9, a period should be disposed at the end of the sentence.

Appropriate correction is required.

Page 3

## Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 5. Claims 1-2, 6-8, 10-11, & 13 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,838,680 B2 to Maher et al.

With respect to claim 1, Maher et al disclose an optical detection device comprising a first module comprising light source that shines light into optical fiber (118) and lens (124) as an optical element for modifying the beam. Maher also discloses a second module that connects to the device via fiber (133) for detection and analysis of the signal. The modules are arranged such that they are in optical communication with each other.

With respect to claim 2, Maher et al disclose the device in such that they are part of one unitary detection system (100).

Application/Control Number: 10/633,794

Art Unit: 2878

With respect to claim 6, Maher et al disclose the device to emit light at different wavelengths (see column 9, lines 66-67; column 10, lines 1-12).

With respect to claims 7-8, Maher et al disclose the device to be a laser (see column 10, lines 5-12).

With respect to claim 10, Maher et al disclose the optical modules contained within the block defined by housing (110).

With respect to claim 11, Maher et al disclose a beamsplitter (116, 32) that can be moved accordingly to adjust the steering of the beam.

With respect to claim 13, Maher et al disclose a PMT (see column 16, lines 20-23).

## Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2878

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3-5, 9, & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,838,680 B2 to Maher et al.

With respect to claim 3, Maher et al do not explicitly disclose the first module to be superposed on the second module, but such would be obvious to one of ordinary skill in the art in order to make the device more compact.

With respect to claim 4, the modified Maher et al do not explicitly disclose the light source incorporated with optics and filters, but such would be obvious to one of ordinary skill in the art in order to make the light source emit light of a desired wavelength.

With respect to claim 5, the modified Maher et al disclose the two modules attached through couplers (122, 135) engaged on lever arm (140) as a dovetail rail.

With respect to claim 9, the modified Maher et al does not explicitly disclose the laser producing a light having wavelength of 405 nm, but such would be obvious to one of ordinary skill in the art in order to detect changes in light that are result of the wavelength of the light being about 405 nm.

With respect to claim 12, the modified Maher et al does not explicitly disclose the beam steering mirror system being a 4 mirror system, but such would be obvious to one of ordinary skill in the art in order to increase the optical path length of the device.

Application/Control Number: 10/633,794

Art Unit: 2878

Conclusion

Page 6

9. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Patrick J. Lee whose telephone number is (571) 272-

2440. The examiner can normally be reached on Monday through Friday, 8:00 am to

5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J. Lee Examiner

Art Unit 2878

PJL

May 10<sup>th</sup>, 2005

Stephone B. Allen

Primary Examine